## Exhibit L (previously filed as Dkt. 660-12)

## In the Matter Of:

United States vs

Google

MARK ISRAEL, PH.D.

March 14, 2024



what types of advertising should be included in the relevant market?  A. Well, the burden, as I understand it, that would be on Plaintiffs' experts would be to show that they include enough to capture enough substitution to satisfy a hypothetical monopolist test.  BY ATTORNEY NAKAMURA:  Q. And what role, if any, does  substitution in purchases make in helping you  determine whether or not the Plaintiffs have  proposed a proper relevant market for this case?  A. I mean, things that are potential  substitutes for advertisers or for publishers,  probably to some degree for users although we  can talk about that more are potentially  hypothetical monopolist test is the right  products that should be in the market. And so in	letermine what ad 1 ld be included in 2 3 a, as I understand 4 s' experts would be 5 gh to capture 6 r a hypothetical 7	1 Q. And how do you determine what ad	Page
2 what types of advertising should be included in 3 the relevant market? 4 A. Well, the burden, as I understand 5 it, that would be on Plaintiffs' experts would be 6 to show that they include enough to capture 7 enough substitution to satisfy a hypothetical 8 monopolist test. 9 BY ATTORNEY NAKAMURA: 10 Q. And do you agree that the 11 hypothetical monopolist test is the right 2 any to get to more distant constraints. 3 Q. And what role, if any, does 4 substitution in purchases make in helping you 5 determine whether or not the Plaintiffs have 6 proposed a proper relevant market for this case? 7 A. I mean, things that are potential 8 substitutes for advertisers or for publishers, 9 probably to some degree for users although we 10 can talk about that more are potentially 11 products that should be in the market. And so in	ald be included in 2 3 4, as I understand 4 5' experts would be 5 gh to capture 6 7 a hypothetical 7	_	
the relevant market?  3 Q. And what role, if any, does  4 A. Well, the burden, as I understand  5 it, that would be on Plaintiffs' experts would be  6 to show that they include enough to capture  7 enough substitution to satisfy a hypothetical  8 monopolist test.  9 BY ATTORNEY NAKAMURA:  10 Q. And do you agree that the  11 hypothetical monopolist test is the right  3 Q. And what role, if any, does  4 substitution in purchases make in helping you  5 determine whether or not the Plaintiffs have  6 proposed a proper relevant market for this case?  7 A. I mean, things that are potential  8 substitutes for advertisers or for publishers,  9 probably to some degree for users although we  10 can talk about that more are potentially  11 products that should be in the market. And so in	3, as I understand 4 s' experts would be 5 gh to capture 6 r a hypothetical 7	2 what types of advertising should be included in	the most important constraints, not skipping over
A. Well, the burden, as I understand  it, that would be on Plaintiffs' experts would be  to show that they include enough to capture  enough substitution to satisfy a hypothetical  monopolist test.  BY ATTORNEY NAKAMURA:  Q. And do you agree that the  hypothetical monopolist test is the right  4 substitution in purchases make in helping you  5 determine whether or not the Plaintiffs have  6 proposed a proper relevant market for this case?  7 A. I mean, things that are potential  8 substitutes for advertisers or for publishers,  9 probably to some degree for users although we  10 can talk about that more are potentially  11 products that should be in the market. And so in	a, as I understand 4 s' experts would be 5 gh to capture 6 a hypothetical 7		any to get to more distant constraints.
5 it, that would be on Plaintiffs' experts would be 6 to show that they include enough to capture 7 enough substitution to satisfy a hypothetical 8 monopolist test. 9 BY ATTORNEY NAKAMURA: 10 Q. And do you agree that the 11 hypothetical monopolist test is the right 5 determine whether or not the Plaintiffs have 6 proposed a proper relevant market for this case? 7 A. I mean, things that are potential 8 substitutes for advertisers or for publishers, 9 probably to some degree for users although we 10 can talk about that more are potentially 11 products that should be in the market. And so in	s' experts would be 5 gh to capture 6 r a hypothetical 7	3 the relevant market?	Q. And what role, if any, does
6 to show that they include enough to capture 7 enough substitution to satisfy a hypothetical 8 monopolist test. 9 BY ATTORNEY NAKAMURA: 10 Q. And do you agree that the 11 hypothetical monopolist test is the right 6 proposed a proper relevant market for this case? 7 A. I mean, things that are potential 8 substitutes for advertisers or for publishers, 9 probably to some degree for users although we 10 can talk about that more are potentially 11 products that should be in the market. And so in	gh to capture 6 a hypothetical 7	4 A. Well, the burden, as I understand	substitution in purchases make in helping you
7 enough substitution to satisfy a hypothetical 8 monopolist test. 8 substitutes for advertisers or for publishers, 9 BY ATTORNEY NAKAMURA: 9 probably to some degree for users although we 10 Q. And do you agree that the 10 can talk about that more are potentially 11 hypothetical monopolist test is the right 11 products that should be in the market. And so in	a hypothetical 7	5 it, that would be on Plaintiffs' experts would be	determine whether or not the Plaintiffs have
8 monopolist test.  9 BY ATTORNEY NAKAMURA:  10 Q. And do you agree that the  11 hypothetical monopolist test is the right  8 substitutes for advertisers or for publishers,  9 probably to some degree for users although we  10 can talk about that more are potentially  11 products that should be in the market. And so in		6 to show that they include enough to capture	proposed a proper relevant market for this case?
9 BY ATTORNEY NAKAMURA: 10 Q. And do you agree that the 11 hypothetical monopolist test is the right 12 products that should be in the market. And so in	8	7 enough substitution to satisfy a hypothetical	A. I mean, things that are potential
10 Q. And do you agree that the 10 can talk about that more are potentially 11 hypothetical monopolist test is the right 11 products that should be in the market. And so i		8 monopolist test.	substitutes for advertisers or for publishers,
11 hypothetical monopolist test is the right	MURA: 9	9 BY ATTORNEY NAKAMURA:	probably to some degree for users although we
	that the 10	10 Q. And do you agree that the	can talk about that more are potentially
12 theoretical framework to use in this matter to 12 you find that there there's evidence of	s the right 11	11 hypothetical monopolist test is the right	products that should be in the market. And so if
	n this matter to 12	12 theoretical framework to use in this matter to	you find that there there's evidence of
13 determine the boundaries of a relevant product	relevant product 13	13 determine the boundaries of a relevant product	substitution by those one of the one or
14 market? 14 more of those parties and you find that the	14	14 market?	more of those parties and you find that the
15 ATTORNEY EWALT: Objection to 15 decision whether or not to include that product	Objection to 15	15 ATTORNEY EWALT: Objection to	
16 form. 16 in your market matters to your conclusions, then	16	16 form.	in your market matters to your conclusions, then
17 THE WITNESS: I think it's part 17 my opinion is Plaintiffs would need to do the	think it's part 17	17 THE WITNESS: I think it's part	my opinion is Plaintiffs would need to do the
of it. It's not all of it. It's but 18 work to determine whether that product should be	it. It's but 18	18 of it. It's not all of it. It's but	work to determine whether that product should be
19 it's a piece of how you analyze markets. 19 in or out based on the hypothetical monopolist	analyze markets. 19	19 it's a piece of how you analyze markets.	in or out based on the hypothetical monopolist
20 BY ATTORNEY NAKAMURA: 20 test. And they have not done that work.	MURA: 20	20 BY ATTORNEY NAKAMURA:	test. And they have not done that work.
21 Q. And what, then, are the other parts 21 Q. And when you say I want to	are the other parts 21	21 Q. And what, then, are the other parts	Q. And when you say I want to
22 of what you would use to determine the boundaries 22 strike that.	mine the boundaries 22	22 of what you would use to determine the boundaries	strike that.
Page 95	Page 95	Page 95	Page 97
Page Page	Page	Page	Page
1 of a relevant product market? 1 I want to understand more about	1	1 of a relevant product market?	I want to understand more about
2 A. I mean, for me, the overarching 2 what you mean by "potential substitutes for	the overarching 2	2 A. I mean, for me, the overarching	what you mean by "potential substitutes for
3 rule of all of it is you define the market that 3 advertisers" first.	e the market that 3	3 rule of all of it is you define the market that	advertisers" first.
4 best captures the competitive alternatives and 4 Is it the case, in your	alternatives and 4	4 best captures the competitive alternatives and	Is it the case, in your
5 the competitive constraints relative to the 5 opinion, that any substitution whatsoever, even	lative to the 5	5 the competitive constraints relative to the	opinion, that any substitution whatsoever, even
6 conduct at issue. The so you need a a 6 one unit, would satisfy the criteria for for	ou need a a 6	6 conduct at issue. The so you need a a	one unit, would satisfy the criteria for for
7 market definition that lets you analyze, in this 7 inclusion in the proper relevant market, in your	u analyze, in this 7	7 market definition that lets you analyze, in this	inclusion in the proper relevant market, in your
8 case, what it what are the constraints on 8 opinion?	constraints on 8	8 case, what it what are the constraints on	opinion?
9 Google and the behavior described in the case. 9 ATTORNEY EWALT: Objection to	bed in the case. 9	9 Google and the behavior described in the case.	ATTORNEY EWALT: Objection to
10 That's a broad economic framework 10 form.	conomic framework 10	10 That's a broad economic framework	form.
11 but but one that I think guides everything.	ides everything. 11	11 but but one that I think guides everything.	THE WITNESS: No, I'm not saying
12 Hypothetical monopolist test is, then, a piece. 12 any substitution means it's in the	s, then, a piece. 12	12 Hypothetical monopolist test is, then, a piece.	any substitution means it's in the
13 Other pieces would include what I've called "the 13 market. I'm saying if there's reasonable	t I've called "the 13	13 Other pieces would include what I've called "the	market. I'm saying if there's reasonable
14 circle principle" in other cases, that you don't 14 evidence in the record that it is a	es, that you don't 14	14 circle principle" in other cases, that you don't	evidence in the record that it is a
15 skip over a closer competition to include more 15 substitute, then and it matters to	to include more 15	15 skip over a closer competition to include more	substitute, then and it matters to
16 distant competition. 16 your conclusions, then it's Plaintiffs'	16	16 distant competition.	your conclusions, then it's Plaintiffs'
17 It would also I think that's 17 job to decide if it's in or it's out.	I think that's 17	17 It would also I think that's	job to decide if it's in or it's out.
18 those are the ones I can think of. There may be 18 And they have not done that for a large	of. There may be 18	18 those are the ones I can think of. There may be	And they have not done that for a large
19 more. But I think you the key is that it 19 number of products for which there is	key is that it 19	19 more. But I think you the key is that it	number of products for which there is
20 explains competition, and within that, you'd want 20 clear evidence in the record of	in that, you'd want 20	20 explains competition, and within that, you'd want	clear evidence in the record of
21 to make sure it satisfies a hypothetical 21 substitution.	pothetical 21	21 to make sure it satisfies a hypothetical	substitution.
22 monopolist test and make sure that it includes 22	that it includes 22	22 monopolist test and make sure that it includes	

	-		
	Page 98		Page 100
	Page	1	very likely that you would need to
1	BY ATTORNEY NAKAMURA:	2	include social media and that you would
2	Q. I appreciate your further	3	need to include in-app, for example.
3	commentary on what you believe Plaintiffs have	4	But, again, my main point is that
4	done, but that was not my question. My	5	those are strong substitutes, whether you
5	question well, I guess I'll move to another	6	include them or not makes a big
6	question.	7	difference, and Plaintiffs have done
7	My question is, What degree of	8	nothing to justify leaving them out.
8	substitution would be sufficient, in your view,	9	BY ATTORNEY NAKAMURA:
9	by advertisers to lead you to the conclusion that	10	Q. Do you believe that audio
10	a particular type of advertising should be	11	advertisements that play on a Web page should
11	included in a relevant proper market in this	12	have been included in Plaintiffs' market?
12	case?	13	A. Audio advertisements? The report
13	ATTORNEY EWALT: Objection to		comments on audio particularly, so I don't think
14	form.	14	
15	THE WITNESS: I mean, I can't	15	I have an opinion one way or the other, not one
16	answer these without referring to	16	that I advance. It's in the category of ones I
17	Plaintiffs because it's what I'm	17	think should be tested to make sure that you've
18	commenting on is whether Plaintiffs have	18	the Plaintiffs have included enough, but I
19	met their burden to define a market.	19	I haven't offered an affirmative opinion about
20	The degree of substitution would	20	audio.
		21	Q. Do you believe it would have been
21	be to show that one can omit that	21	Q. Do you believe it would have been
21 22	be to show that one can omit that product demonstrate one can omit that	22	possible, given the data and documents in this
	product demonstrate one can omit that		possible, given the data and documents in this
	product demonstrate one can omit that  Page 99	22	possible, given the data and documents in this  Page 101
22	product demonstrate one can omit that  Page 99  Page	22	possible, given the data and documents in this  Page 101 case, to have tested for whether audio
22	product demonstrate one can omit that  Page 99  Page  product and still satisfy the	22 1 2	possible, given the data and documents in this  Page 101  case, to have tested for whether audio advertisements could have been properly included
22 1 2	product demonstrate one can omit that  Page 99  Page  product and still satisfy the hypothetical monopolist test and the	1 2 3	possible, given the data and documents in this  Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?
1 2 3	product demonstrate one can omit that  Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately	1 2 3 4	possible, given the data and documents in this  Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to
1 2 3 4	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are	1 2 3 4 5	possible, given the data and documents in this  Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it
1 2 3 4 5	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on	1 2 3 4 5 6	possible, given the data and documents in this  Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go
1 2 3 4 5 6	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.	1 2 3 4 5 6 7 8	possible, given the data and documents in this  Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done.
1 2 3 4 5 6 7	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA:	1 2 3 4 5 6 7 8 9	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the
1 2 3 4 5 6 7 8	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you	1 2 3 4 5 6 7 8 9 10	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't
1 2 3 4 5 6 7 8 9	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these	1 2 3 4 5 6 7 8 9 10	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every
1 2 3 4 5 6 7 8 9 10	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included	1 2 3 4 5 6 7 8 9 10 11 12	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to
1 2 3 4 5 6 7 8 9 10 11	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently	1 2 3 4 4 5 6 7 8 9 10 11 12 13	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've
1 2 3 4 5 6 7 8 9 10 11 12	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?	1 2 2 3 4 5 6 7 8 9 10 11 12 13 14	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.
1 2 3 4 5 6 7 8 9 10 11 12 13	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?  ATTORNEY EWALT: Objection to	1 2 3 4 4 5 6 6 7 8 9 10 11 12 13 14 15	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.  BY ATTORNEY NAKAMURA:
1 2 3 4 5 6 7 8 9 10 11 12 13 14	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?  ATTORNEY EWALT: Objection to form.	1 2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.  BY ATTORNEY NAKAMURA: Q. At a minimum, how would you
1 2 3 4 5 6 7 8 8 9 10 11 12 13 14 15	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?  ATTORNEY EWALT: Objection to form.  THE WITNESS: Again, I I	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.  BY ATTORNEY NAKAMURA: Q. At a minimum, how would you describe what the what the hypothetical
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?  ATTORNEY EWALT: Objection to form.  THE WITNESS: Again, I I haven't gone and done the hypothetical	1 2 2 3 4 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.  BY ATTORNEY NAKAMURA: Q. At a minimum, how would you describe what the what the hypothetical monopolist test requires with respect to data?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA: Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?  ATTORNEY EWALT: Objection to form.  THE WITNESS: Again, I I haven't gone and done the hypothetical monopolist test on each of those because	1 2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.  BY ATTORNEY NAKAMURA: Q. At a minimum, how would you describe what the what the hypothetical
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA:  Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?  ATTORNEY EWALT: Objection to form.  THE WITNESS: Again, I I haven't gone and done the hypothetical monopolist test on each of those because Plaintiffs haven't and I have nothing to	1 2 2 3 4 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.  BY ATTORNEY NAKAMURA:  Q. At a minimum, how would you describe what the what the hypothetical monopolist test requires with respect to data?  ATTORNEY EWALT: Objection to form.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Page 99  Page  product and still satisfy the hypothetical monopolist test and the circle principle and still adequately capture the set of products that are important competitive constraints on Google.  BY ATTORNEY NAKAMURA:  Q. Are there products for which you offer an opinion that you believe that these advertising products should at least be included in Plaintiffs' relevant market that are currently not part of that market definition?  ATTORNEY EWALT: Objection to form.  THE WITNESS: Again, I I haven't gone and done the hypothetical monopolist test on each of those because Plaintiffs haven't and I have nothing to respond to.	1 2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Page 101  case, to have tested for whether audio advertisements could have been properly included in a relevant market in this case?  ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, I leave it some to Plaintiffs for how they would go about doing tests they haven't done. But, in general, you you the hypothetical monopolist test doesn't require you to have data on every possible product. It requires you to actually test that the products you've included are enough.  BY ATTORNEY NAKAMURA:  Q. At a minimum, how would you describe what the what the hypothetical monopolist test requires with respect to data? ATTORNEY EWALT: Objection to

	Page 102		Page 104
1	about what data you need that you can	1	let me conclude that there could be that there
2	I mean, there are a variety of ways to do	2	would be a SSNIP in the absence of these other
3	the test: by looking at evidence on	3	products.
4	what's actually happened to prices, by	4	Q. And let me turn again to one type
5	looking on whatever evidence you have of	5	of advertising that you have said in your reports
6	substitution.	6	ought to have been included in Plaintiffs'
7	Economists are certainly in the	7	market, and let me talk now about search
8	business of trying to predict price	8	advertising.
9	effects based on the best data that we	9	Is it your opinion that search
10	can have. Hypothetical monopolist test	10	advertising should have been included in
11	is basically saying Plaintiffs would need	11	Plaintiffs' relevant markets in this case?
12	to do something to show that they have a	12	ATTORNEY EWALT: Objection to
13	reliable prediction of a price increase	13	form.
14	for a hypothetical monopolist of some	14	THE WITNESS: I mean, I haven't
15	market that they have defined. And	15	done the test in this case for whether
16	Plaintiffs haven't done that.	16	there would be a market around the
17	BY ATTORNEY NAKAMURA:	17	products here that does or does not
18	Q. And is it your opinion that	18	include search.
19	Plaintiffs have done nothing to provide a	19	My opinion, as I've stated
20	reliable prediction of a price increase for	20	elsewhere, is that search is a substitute
21	hypothetical market for a I'm sorry.	21	for social, at least, and for parts of
22	Is it your opinion that	22	display, so I think the the most
	is it your opinion that	22	display, so I tillik the the most
	Page 103		Page 105
1	Plaintiffs' experts have done nothing to show	1	likely market that I would arrive at
2	that there would be a reliable prediction of a	2	would be would include search and
3	change in purchases as a result of a price	3	would include all digital advertising.
4	increase?	4	But as we know about market
5	ATTORNEY EWALT: Objection to	5	definition, it's specific to the conduct
6	form.	6	in a case and the set of products in the
7	THE WITNESS: I'm sorry. I don't	7	case, and you build out from those
8	understand the question.	8	products, and I haven't tested here
9	BY ATTORNEY NAKAMURA:	9	whether search would need to be in or out
10	Q. Sure.	10	of the market that applies to this case.
11	What, if anything, have	11	BY ATTORNEY NAKAMURA:
12	Plaintiffs done, in your opinion, that would	12	Q. So what is your basis for your
13	satisfy any part of a hypo hypothetical	13	opinion that search should have been included by
		1 1 4	Plaintiffs' experts in the relevant market?
14	monopolist test?	14	<u>-</u>
	monopolist test?  A. I mean, I I'm happy to look at	15	ATTORNEY EWALT: Objection to
14			-
14 15	A. I mean, I I'm happy to look at	15	ATTORNEY EWALT: Objection to
14 15 16	A. I mean, I I'm happy to look at specific things. As I sit here, I I I	15 16	ATTORNEY EWALT: Objection to form and foundation.
14 15 16 17	A. I mean, I I'm happy to look at specific things. As I sit here, I I I can't see anything that they have done to show	15 16 17	ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, search has
14 15 16 17 18	A. I mean, I I'm happy to look at specific things. As I sit here, I I I can't see anything that they have done to show that, for example, there could be a SSNIP that	15 16 17 18	ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, search has been somewhat less the focus of this case
14 15 16 17 18 19	A. I mean, I I'm happy to look at specific things. As I sit here, I I I can't see anything that they have done to show that, for example, there could be a SSNIP that doesn't include in-app or doesn't include social.	15 16 17 18 19	ATTORNEY EWALT: Objection to form and foundation.  THE WITNESS: I mean, search has been somewhat less the focus of this case just because the case starts from, you

	Page 106		Page 108
1	substitutes with other forms of digital	1	advertising?
2	advertising, so my opinion that	2	A. Yeah, I believe so. There's
3	therefore, that leads me to the opinion	3	bunches of them. I mean, they're they're in
4	that it's it's an important	4	the appendix because they in the body. I work
5	substitute.	5	from display to the ones I mentioned, app and
6	Certainly, somebody would have	6	social. But I think in multiple paragraphs and
7	to you know, in proposing a market,	7	footnotes and then in charts and tables that are
8	it's an example of a form of digital	8	in the appendix to the report, I add search.
9	advertising that Plaintiffs, you know,	9	Q. And you add search for illustrative
10	should have looked at.	10	purposes only; is that correct?
11	BY ATTORNEY NAKAMURA:	11	A. I mean, I I show a variety of
12	Q. So the basis in this case for your	12	shares throughout the report to demonstrate the
13	opinion that search advertising is properly	13	point I've been making to you, which is that
14	included in Plaintiffs' relevant market is your	14	whether or not you include products is
15	open public testimony in another case; is that	15	consequential, and Plaintiffs haven't considered
16	correct?	16	them. So I include search in the same way I
17	ATTORNEY EWALT: Objection to	17	include everything, as as a calculation of a
18	form.	18	share for a market that Plaintiffs should have
19		19	considered and did not.
	THE WITNESS: Again, to be clear,		
20	I'm not offering an opinion in this case,	20	Q. So why, in your opinion, is search
	and I explicitly said I have not tested	21	relevant if you have done no work to show that it
22	whether search needs to be in or any	22	is a meaningful substitute I'm sorry to
	D 407		D 400
	Page 107		Page 109
1	specific other form needs to be in. I	1	show that it is a substitute for display
1 2		1 2	•
	specific other form needs to be in. I	_	show that it is a substitute for display
2	specific other form needs to be in. I said they matter; they're a strong	2	show that it is a substitute for display advertising, as Plaintiffs have defined it?
2 3	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the	2 3	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising
2 3 4	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.	2 3 4	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I
2 3 4 5	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my	2 3 4 5	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms
2 3 4 5 6	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to	2 3 4 5	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be
2 3 4 5 6 7	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based	2 3 4 5 6	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of
2 3 4 5 6 7 8	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think	2 3 4 5 6 7 8	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.
2 3 4 5 6 7 8	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital	2 3 4 5 6 7 8	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I
2 3 4 5 6 7 8 9	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me	2 3 4 5 6 7 8 9	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just
2 3 4 5 6 7 8 9 10	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute	2 3 4 5 6 7 8 9 10	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of
2 3 4 5 6 7 8 9 10 11 12	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.	2 3 4 5 6 7 8 9 10 11	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs
2 3 4 5 6 7 8 9 10 11 12 13	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you — if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an	2 3 4 5 6 7 8 9 10 11 12 13	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search
2 3 4 5 6 7 8 9 10 11 12 13 14	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an affirmative opinion in this case,	2 3 4 5 6 7 8 9 10 11 12 13	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search is an example.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an affirmative opinion in this case, starting from the products in this case,	2 3 4 5 6 7 8 9 10 11 12 13 14	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search is an example.  Q. And so I understand that you were
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an affirmative opinion in this case, starting from the products in this case, that says search does or doesn't need to	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search is an example.  Q. And so I understand that you were retained by Google as a testifying economic
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an affirmative opinion in this case, starting from the products in this case, that says search does or doesn't need to be in this case.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search is an example.  Q. And so I understand that you were retained by Google as a testifying economic expert in the search litigation that went on in
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an affirmative opinion in this case, starting from the products in this case, that says search does or doesn't need to be in this case.  BY ATTORNEY NAKAMURA:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search is an example.  Q. And so I understand that you were retained by Google as a testifying economic expert in the search litigation that went on in the District of Columbia Federal Court; is that
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an affirmative opinion in this case, starting from the products in this case, that says search does or doesn't need to be in this case.  BY ATTORNEY NAKAMURA:  Q. And so in your report, do you have	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search is an example.  Q. And so I understand that you were retained by Google as a testifying economic expert in the search litigation that went on in the District of Columbia Federal Court; is that correct?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	specific other form needs to be in. I said they matter; they're a strong substitution; Plaintiffs haven't done the work.  So I'm not testifying as my opinion in this case that you have to include search. I'm telling you, based on what I've said elsewhere, I think search is a substitute for other digital advertising, so if you if you ask me should it be in, it's likely a substitute that at least needed to be considered.  But I'm not offering an affirmative opinion in this case, starting from the products in this case, that says search does or doesn't need to be in this case.  BY ATTORNEY NAKAMURA:  Q. And so in your report, do you have any graphs, tables, figures or analyses that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	show that it is a substitute for display advertising, as Plaintiffs have defined it?  A. It's a form of digital advertising that, you know, I have discussed openly, as I said, substitutes for at least some other forms of display advertising. So I I tried to be complete here by including the various forms of digital advertising.  Again, I haven't done just I haven't done one that just includes video or just includes direct. I've tried to say that each of these categories of advertising that Plaintiffs have not shown can be left out matter, and search is an example.  Q. And so I understand that you were retained by Google as a testifying economic expert in the search litigation that went on in the District of Columbia Federal Court; is that correct?  A. Yes.

## PRIVILEGED & CONFIDENTIAL

Page	Line	Change	Reason
417	22	"make up the" should be "makeup, the"	Transcription error.
418	1	"the respondents looks" should be "the respondents, looks"	Transcription error
420	8	"Demand" should be "demand"	Transcription error.
446	13	"features including" should be "features—including"	Transcription error.
446	14	"auctions into" should be "auctions—into"	Transcription error.
453	4	"DFP DSPs" should be "DSPs"	Clarification.
453	9	"mil" should be "mille"	Transcription error.
453	11	"rate. So" should be "rate, so"	Transcription error.
456	7	"DF360" should be "DV360"	Transcription error.
456	18	"DFP360" should be "DV360"	Transcription error.
456	21	"advertising Google Ads" should be "advertising, Google Ads"	Transcription error.
468	17	"ads clients (e.g., agency" should be "Ads clients (e.g., Agency"	Transcription error.
468	18	"direct advertiser" should be "Direct Advertiser"	Transcription error.
469	1	"ads" should be "Ads"	Transcription error.
470	22	"ads" should be "Ads"	Transcription error.
477	12	"a ad server" should be "an ad server"	Clarification.
482	13	"Demand" should be "demand"	Transcription error.

I have inspected and read my deposition and have listed all changes and corrections above, along with my reasons therefor.

Date:	4/10/2024	Signature: Mah a. 20